BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: VIDYARANYAPURA

Name of Work: Estimate for Improvements to Roads and Drain at BEL layout 1st Block 3rd block 4th Block and Surronding Areas in ward no 09 (Vidyaranyapura)

Job Code: 009-20-000072

P-Code: P-0541

Estimated Cost: Rs: 80.00 Lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements To Roads and Drain at BEL layout 1st Block 3rd block 4th Block and Surronding Areas in ward no 09 (Vidyaranyapura)

Estimation Cost.Rs 8000000.00

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 143 / Item No. 19.1, PWD SR 2018-19**	Cum							
	Desilt for Drain								
	BEL 1st Block								
	2nd A Main Road		2	167.00	0.45	0.45	67.64		
	2nd B Main Road		2	173.00	0.45	0.45	70.07		
	12th Cross Road		2	172.00	0.60	0.55	113.52		
	9th Cross Road		2	161.00	0.60	0.55	106.26		
	For Flagging Course								
	BEL 1st Block								
	2nd A Main Road		2	167.00	0.30	0.60	60.12		
	2nd B Main Road		2	173.00	0.30	0.60	62.28		
	12th Cross Road		2	172.00	0.30	0.60	61.92		
	9th Cross Road		2	161.00	0.30	0.60	57.96		
	Basic rate							130.00	
	Area weightage 6%							7.80	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						**599.76**	207.60	**124510.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 27 / Item No. 5.33 PWD SR 2018-19**	Sqm							
	BS Drain Slab								
	BEL 1st Block								
	2nd A Main Road		2	167.00	1.35		450.90		
	2nd B Main Road		2	173.00	1.35		467.10		
	12th Cross Road		2	172.00	1.80		619.20		
	9th Cross Road		2	161.00	1.80		579.60		
					Sub Total		2116.80		
	Consider 30% Missing or Damaged Slab						640.33		
	Basic rate							105.00	
	Area weightage 6%							6.3	
	Total						**1476.47**	111.30	**164331.00**
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 27 / Item No. 5.31.1 PWD SR 2018-19**	Sqm							
	Consider 30% Missing or Damaged Slab	Qty vide from item No 2					640.33		
	Basic rate							700.00	
	Area weightage 6%							42.00	
	Total						**640.33**	742.00	**475126.00**
4	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6 with with OPC cement @ 220kgs, with crushed 40mm and down size** graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications MORTH Specification No. 2100 **Item No. 27.18 Page No. 222, PWD SR 2018-19**	Cum							
	For Flagging Course								
	BEL 1st Block								
	2nd A Main Road		2	167.00	0.30	0.15	15.03		
	2nd B Main Road		2	173.00	0.30	0.15	15.57		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	12t[redacted]ross Road		2	172.00	0.30	0.15	15.48		
	9th Cross Road		2	161.00	0.30	0.15	14.49		
	Basic rate							5115.00	
	Area weightage 6%							306.9	
	Total						**60.57**	5421.90	**328404.00**
5	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 27 / Item No. 5.26.2, PWD SR 2018-19**	Sqm							
	For Flagging Course								
	BEL 1st Block								
	2nd A Main Road		4	167.00		0.60	400.80		
	2nd B Main Road		4	173.00		0.60	415.20		
	12th Cross Road		4	172.00		0.40	275.20		
	9th Cross Road		4	161.00		0.40	257.60		
	Basic rate							924.00	
	Area weightage 6%							55.44	
	Total						**1348.80**	979.44	**1321069.00**
6	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page. No. 255 / Item No.34.11 of PWD SR 2018-19**	Cum							
	For Flagging Course								
	BEL 1st Block								
	2nd A Main Road		4	167.00	0.20	0.10	13.36		
	2nd B Main Road		4	173.00	0.20	0.10	13.84		
	12th Cross Road		4	172.00	0.20	0.10	13.76		
	9th Cross Road		4	161.00	0.20	0.10	12.88		
	Basic rate							5283.00	
	Area weightage 6%							316.98	
	Total						**53.84**	5599.98	**301503.00**
7	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)	Sqm							
	Drain cover slab								
	BEL 1st Block								
	2nd A Main Road		2	167.00	0.75		250.50		
	2nd B Main Road		2	173.00	0.75		259.50		
	12th Cross Road		2	172.00	0.90		309.60		
	9th Cross Road		2	161.00	0.90		289.80		
	Data rate							2337.00	
	Total						**1109.40**	2337.00	**2592668.00**
8	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)	Cum							
	Road								
	BEL 1st Block								
	2nd A Main Road		1	70.00	1.35	0.60	56.70		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	2nd B Main Road		1	21.00	0.90	0.23	4.35		
			1	18.00	1.10	0.23	4.55		
	12th Cross Road		1	20.00	0.60	0.23	2.76		
			1	13.00	1.10	0.23	3.29		
			1	13.00	1.50	0.23	4.49		
	9th Cross Road		1	15.00	1.30	0.23	4.49		
			1	10.00	2.20	0.23	5.06		
			1	20.00	1.80	0.23	8.28		
	Basic rate							41.00	
	Area weightage 6%							2.46	
	5Km lead= (2*1.28*5)							12.80	
	Total						**93.96**	56.26	**5286.00**
9	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 155 / Item No. 20.18, PWD SR 2018-19**	Cum							
	Road cutting portion								
	BEL 1st Block								
	2nd A Main Road		1	70.00	1.35	0.60	56.70		
	2nd B Main Road		1	21.00	0.90	0.23	4.35		
			1	18.00	1.10	0.23	4.55		
	12th Cross Road		1	20.00	0.60	0.23	2.76		
			1	13.00	1.10	0.23	3.29		
			1	13.00	1.50	0.23	4.49		
	9th Cross Road		1	15.00	1.30	0.23	4.49		
			1	10.00	2.20	0.23	5.06		
			1	20.00	1.80	0.23	8.28		
	Basic rate							1888.00	
	Area weightage 6%							113.28	
	Total						**93.96**	2001.28	**188040.00**
10	KSRRB 500-1. **Cleaning the existing WBM** road surface including removing of binding materials and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and / or compressed air, to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **Page No. 158 / Item No. 21.1, PWD SR 2018-19**	Sqm							
	Road cutting portion								
	BEL 1st Block								
	2nd A Main Road		1	70.00	1.35		94.50		
	2nd B Main Road		1	21.00	0.90		18.90		
			1	18.00	1.10		19.80		
	12th Cross Road		1	20.00	0.60		12.00		
			1	13.00	1.10		14.30		
			1	13.00	1.50		19.50		
	9th Cross Road		1	15.00	1.30		19.50		
			1	10.00	2.20		22.00		
			1	20.00	1.80		36.00		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Basic rate							21.00	
	Area weightage 6%							1.26	
	Total						256.50	22.26	5710.00
11	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 158 / Item No. 21.6, PWD SR 2018-19**	Sqm							
	BEL 1st Block								
	2nd A Main Road		1	70.00	1.35		94.50		
	2nd B Main Road		1	21.00	0.90		18.90		
			1	18.00	1.10		19.80		
	12th Cross Road		1	20.00	0.60		12.00		
			1	13.00	1.10		14.30		
			1	13.00	1.50		19.50		
	9th Cross Road		1	15.00	1.30		19.50		
			1	10.00	2.20		22.00		
			1	20.00	1.80		36.00		
					Sub Total		256.50		
	2nd A Main Road		1	167.00	5.60		935.20		
	2nd B Main Road		1	173.00	5.50		951.50		
	12th Cross Road		1	172.00	5.50		946.00		
	9th Cross Road		1	170.00	5.20		884.00		
					Sub Total		3716.70		
	For 20% Profile Correction						743.34		
	Basic rate							28.00	
	Area weightage 6%							1.68	
	Total						999.84	29.68	29675.00
12	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen **(P.No-160,I No-21.17.6)**	Cum							
	BEL 1st Block								
	2nd A Main Road		1	70.00	1.35	0.05	4.73		
	2nd B Main Road		1	21.00	0.90	0.05	0.95		
			1	18.00	1.10	0.05	0.99		
	12th Cross Road		1	20.00	0.60	0.05	0.60		
			1	13.00	1.10	0.05	0.72		
			1	13.00	1.50	0.05	0.98		
	9th Cross Road		1	15.00	1.30	0.05	0.98		
			1	10.00	2.20	0.05	1.10		
			1	20.00	1.80	0.05	1.80		
					Sub Total		12.83		
	2nd A Main Road		1	167.00	5.60	0.05	46.76		
	2nd B Main Road		1	173.00	5.50	0.05	47.58		
	12th Cross Road		1	172.00	5.50	0.05	47.30		
	9th Cross Road		1	170.00	5.20	0.05	44.20		
					Sub Total		185.84		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	For [redacted]% Profile Correction						37.17		
	Basic rate							6045.00	
	Area weightage 6%							362.70	
	Total						**49.99**	6407.70	**320334.00**
13	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **Page No. 158 / Item No. 21.2, PWD SR 2018-19**	Sqm							
	BEL 1st Block								
	2nd A Main Road		1	167.00	5.60		935.20		
	2nd B Main Road		1	173.00	5.50		951.50		
	12th Cross Road		1	172.00	5.50		946.00		
	9th Cross Road		1	170.0	5.20		884.00		
	Basic rate							5.00	
	Area weightage 6%							0.3	
	Total						**3716.70**	5.30	**19699.00**
14	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **Page No. 158 / Item No. 21.7 PWD SR 2018-19**	Sqm							
	BEL 1st Block								
	2nd A Main Road		1	167.00	5.60		935		
	2nd B Main Road		1	173.00	5.50		952		
	12th Cross Road		1	172.00	5.50		946		
	9th Cross Road		1	170.00	5.20		884		
	Basic rate							12.00	
	Area weightage 6%							0.72	
	Total						**3716.70**	12.72	**47276.00**
15	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)	Cum							
	BEL 1st Block								
	2nd A Main Road		1	167.00	5.60	0.04	37.41		
	2nd B Main Road		1	173.00	5.50	0.04	38.06		
	12th Cross Road		1	172.00	5.50	0.04	37.84		
	9th Cross Road		1	170.00	5.20	0.04	35.36		
	Basic rate							6939.00	
	Area weightage 6%							416.34	
	Total						**148.67**	7355.34	**1093504.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
16	KSR[illegible]B M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)	Sqm							
	BEL 1st Block								
	2nd A Main Road		2	167.00	0.10		33.40		
	2nd B Main Road		2	173.00	0.10		34.60		
	12th Cross Road		2	172.00	0.10		34.40		
	9th Cross Road		2	170.00	0.10		34.00		
	Basic rate							429.00	
	Area weightage 6%							25.74	
	Total						136.40	454.74	62027.00
								Grand Total	7079162.00
								GST Charges (12% of estimated cost)	849499.00
								PMC Charges @ 1%	70792.00
								Miscellenious and rounding	547.00
								Total Amount	8000000.00
	RUPEES EIGHTY LAKHS ONLY								

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

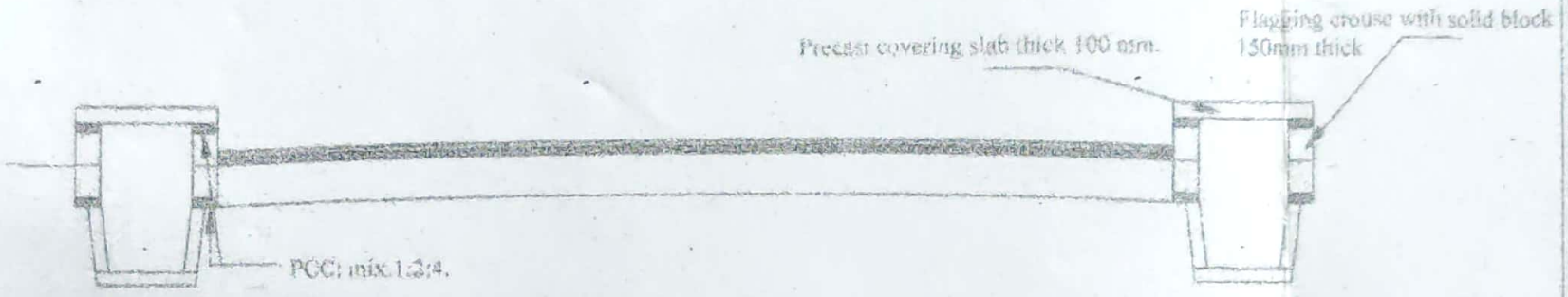
Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division
28/09

ADMINISTRATIVE APPROV[illegible]
Accorded For Rs. 80.00 lakhs only
Head of A/c. P0541,
Div. Ref. No. 47 Date. 8/10/2020
AE 8/10
EE(BTP) 8/10

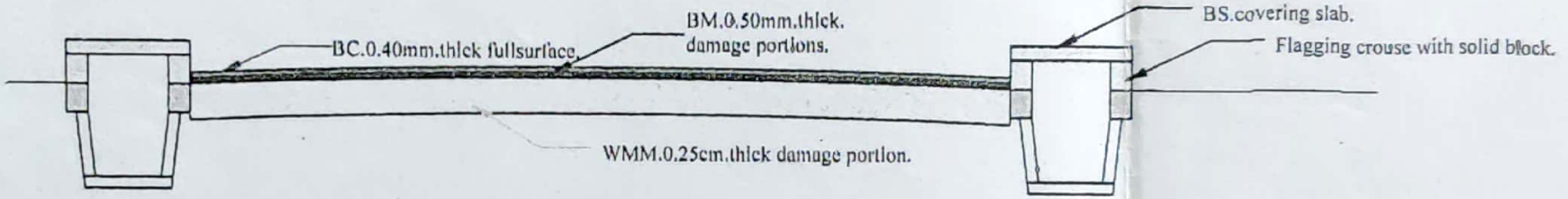
Technical Sanction
Accorded For Rs 80.00 lakhs
Head of A/C P0541
CER NO :..130..... Dt: 09.11.2020
[illegible]
EE (T&K).

152 - BYATARAYANAPURA AC
WARD NAME : 9 - VIDYARANYAPURA

Improvements To Roads and Drain at BEL layout 1st Block 3rd block 4th Block and Surronding Areas in ward no 09 (Vidyaranyapura)



CROSS SECTION OF SOLID BLOCK FLAGGING COURCE OVER B S SLAB DRAIN.



CROSS SECTION OF ASPHALT ROAD.

ASSISTANT ENGINEER.

ASSISTANT EXECUTIVE
ENGINEER.

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